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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,635	12/02/2003	Jeffrey David Aman	YOR920030562US1	4545
35526	7590	07/13/2007		
DUKE W. YEE YEE & ASSOCIATES, P.C. P.O. BOX 802333 DALLAS, TX 75380			EXAMINER AVELLINO, JOSEPH E	
			ART UNIT 2143	PAPER NUMBER
			MAIL DATE 07/13/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/725,635

Applicant(s)

AMAN ET AL.

Examiner

Joseph E. Avellino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-6, 8-16, 18-20 are presented for examination; claims 1, 11 and 20 independent. The Office acknowledges the cancellation of claims 7 and 17.

***Claim Rejections - 35 USC § 101***

2. The rejection under 35 USC 101 has been withdrawn.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson (US 6,697,849) in view of Jindal et al. (USPN 6,327,622) (hereinafter Jindal).

3. Referring to claim 1, Carlson discloses a method of distributing traffic to application instances (i.e. applications 202-208 running on application server 200) on one or more computing devices (i.e. servers 308A-C), comprising:

obtaining application instance specific operational information (i.e. server load criteria and application component performance criteria) identifying operational characteristics (i.e. elements shown in Figures 8 and 9) of an application instance on a

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computing device on the one or more computing devices (e.g. abstract; col. 12, lines 40-67);

generating a load balancing weight to be associated with an application instance based on the application instance specific operational information (i.e. random number is generated in a weighted manner according to the "best" server at that particular time) (col. 16, lines 13-47); and

distributing traffic based on the generated load balancing weight (i.e. "gracefully" distribute requests among the application servers) (col. 16, lines 35-47).

Carlson does not explicitly disclose that the instance specific operational information includes a number of successful transactions processed by the application instance in a given period of time. In analogous art, Jindal discloses another method for distributing traffic to application instances which discloses utilizing throughput in the criteria for load balancing (col. 2, lines 65-67). It would have been obvious to one of ordinary skill in the art to combine the teaching of Jindal with Carlson in order to utilize the policies of Jindal with the performance criteria used by Carlson, thereby increasing the ability to customize load balancing weights according to the user's liking.

4. Referring to claim 2, Carlson discloses the invention substantively as described in claim 1. Carlson does not explicitly state receiving the operational information from an agent program resident on the computing device, however does discuss the use of a load balancing service including a load monitor and a load distributor (Figure 4). In analogous art, Jindal discloses another load balancing service amongst a plurality of

application instances (e.g. abstract) which discloses using an agent program (i.e. individual server objects) which is capable of returning operational status information to a load balancer using a replicated monitor object 220 (col. 8, lines 23-30, 55-67). It would have been obvious to one of ordinary skill in the art to combine the teaching of Carlson in view of Jindal in order to provide an efficient method for distribution of load information of Carlson (Figures 8-9), in order for the load balancers to make an efficient determination of the weighing of the application servers.

5. Referring to claim 3, Carlson-Jindal discloses the invention substantively as described in claim 2. Jindal further discloses the application instance is configured to send information to the agent (i.e. via status objects which collect the operational information from the application instances) (e.g. abstract). It would have been obvious to one of ordinary skill in the art to combine the teaching of Carlson in view of Jindal in order to provide an efficient method for distribution of load information of Carlson (Figures 8-9), in order for the load balancers to make an efficient determination of the weighing of the application servers.

6. Referring to claim 4, Carlson discloses generating a weight comprises comparing the application instance specific information to one or more other application instance specific information and generating a load balancing weight based on the relationship between the application instance specific information and the other application instance

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specific information (i.e. rank the application servers in terms of their response time and generate the weights based on the fastest response times) (col. 16, lines 35-40).

7. Referring to claim 5, wherein the relationship is the relative difference between the two application instances (i.e. this can be construed as ranking as described above) (col. 16, lines 35-40).

8. Claim 6 and 7 are rejected for similar reasons as stated above.

9. Referring to claim 8, Carlson discloses performing the weighting periodically (col. 16, lines 5-12),

10. Referring to claim 9, Carlson-Jindal discloses the invention substantively as described in claim 1. Carlson does not explicitly state that the weighting is done separately from the computing devices or a load balancing device, however it has been held obvious to make parts separable. See *Nerwin v. Erlichman* 168 USPQ 177 (1969). By this rationale, one of ordinary skill in the art would have found it obvious to separate the weight management system from a load balancing device or the computing devices in order to reduce processing overhead, thereby resulting in a more efficient system.

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11. Referring to claim 10, Carlson discloses assigning a base weight to the servers, and increasing/decreasing the weights based on the relative response time (i.e. in a random distribution of N servers, each server would receive equal weighting  $1/N$ , however by ranking the servers in terms of the response time, those servers with a relatively lower response time would increase their weighting) (col. 16, lines 35-40).

12. Claims 11-16, and 18-20 are rejected for similar reasons as stated above.

### ***Response to Arguments***

13. Applicant's arguments filed July 2, 2007 have been fully considered but they are not persuasive.

14. In the remarks, Applicant argues, in substance, that (1) Carlson does not disclose utilizing throughput as a criteria for load balancing.

15. As to point (1), Applicant's attention is directed to the rejection above where Jindal does, in fact, disclose using throughput as a criteria for load balancing.

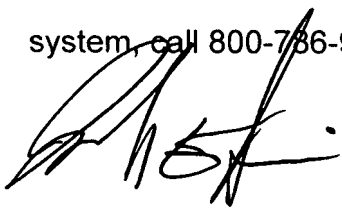
### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'J. Avellino', with a stylized flourish at the end.

Joseph E. Avellino, Examiner  
July 7, 2007